

ENGINEERING CHANGE NOTICE
DART AEROSPACE LTD

MPP

Date: 13.04.08	Job No.: D105-674	ADR Yes/No: Y	ADR Date: 12.12.10	ECN #: 13- 510
Product No.: D105-674		Created By: DB	Approved By:	
Product Name: DART SKIDTUBES		Checked By: <i>[Signature]</i>		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	Y	NF	
Production Manager / Coord.	Y	LL/MF	
Purchasing Coord.	Y	CL	
Production Engineering Coord.	Y	DD/JLM	
Production Engineering Coord.	N	DL	
Customer Order Processing	N	RM/CA	

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
DQA / QA Coord.	Y	PS	
QC Coordinator	Y	ED	
Customer Support	Y	SW/LM	
Customer Technical Support	Y	MB/DS	
Marketing	N	HM	

Reason for Change:	CUSTOMER REPORTS OF PREMATURE CORROSION, CHANGE TO STAINLESS STEEL		
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Documents Affected:	D2970 Rev B, D2974 Rev B, D2975 Rev B, MDL-D105-674 Rev C		
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PAPERWORK UPDATE

PARTS MUST COMPLY

PREVIOUS PARTS SATISFACTORY

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Master Document List (MDL)	Y	DB	MDL-D105-674 Rev C	<i>BB 13.04.08</i>
6	Update Product Compatability Matrix	N			
7	Create Eurocopter Form (FEE)	N			
8	Notify TC / FAA of Change	N			
9					

#	Document Control Actions	Reqd	Resp	Notes	Complete
10	Move Electronic Files/Design Journal	Y	KJ		
11	Update Product Specification Files	N			
12	Update Approved/Preliminary Dwg PDF Files	Y	KJ		<i>13.04.08</i>
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify ARC Database	N			
18	Create / Update Change Record Form / Item Card Database	Y	<i>13.04.08</i>	D105-674-011@CHG 003	<i>13.04.08</i>
19	Create / Update PPP's	Y	<i>13.04.08</i>		
20	Red Decals required?	Y	<i>13.04.08</i>		
21	Update Document Control Database / Laminated Dwgs	N			
22	Update Grey Project / Electronic Binder PDF Files	Y	KJ		<i>13.04.08</i>
23	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		<i>13.04.08</i>
24	Manufacturing Licensing Agreement Update				

Description / Action:		
Rework SkidTubes to CHG 003, Scrap all Rev A Wearplates.		
<i>32970</i>		
<i>32974</i>		
<i>32975</i>		
	<i>94006 ✓</i>	
	<i>94007 ✓</i>	<i>D105-674-011</i>
	<i>95508 ✓</i>	<i>updated in 13.04.09</i>
	<i>95509 ✓</i>	

ECN Verified & Complete: _____

Date: _____

List Lots

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Criteria : Item ID: 'D2970-1', 'D2970-3', 'D2971', 'D2972', 'D2973', 'D2974', 'D2975' All Locations All Warehouses All Quantity

Item ID Item Name	Warehouse ID Location ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
					Lot Code		
D2970-1 Wearplate	Main Warehouse FP002	48213	12/27/12	3.0000	QC21		994662
	Main Warehouse FP002	94416	2/26/13	8.0000	QC21		
D2970-3 Wearplate	Main Warehouse FP002	80091	9/24/12	6.0000	QC21		
	Main Warehouse FP002	86867	11/30/12	4.0000	QC21	99463	
D2971 Cross Bolt Spacer	Main Warehouse LG001	74720	3/26/13	16.0000	QC21		
	Main Warehouse LG002	86730	11/21/12	19.0000	QC21		
D2972 Bushing	Main Warehouse ST022	86834	2/01/13	33.0000	QC21		
	Main Warehouse ST022	91742	2/01/13	19.0000	QC21		
D2973 Cross Bolt Spacer	Main Warehouse ST022	95856	2/01/13	24.0000	QC21		
	Main Warehouse LG002	80092	1/31/13	76.0000	QC21		
	Main Warehouse LG002	86858	3/26/13	31.0000	QC21		
				7.0000	QC21		

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
				Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear	General											
	Bending	Bend	Grain	Ovalized	Pressure/Forced							
	Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure							
	Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld							
	Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled							
	Cuffs	Contamination	Maintenance	Part Moved								
	Heat Treat	Countersink	Mislabeled	Positioned Wrong								
	Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge								
	Ripples in Bend	Drill Holes	Offset	Other								
	Torque Waves in Extrusion	Drawing	Out of Calibration									
	Turning Sequence	Finish	Out of Sequence									
	Wave/Twist in Tube	Folio	Outside Dimensions									

List Lots

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Item ID Item Name	Warehouse ID Location ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Lot Code	Type Code	Comments
D2973 Cross Bolt Spacer	Main Warehouse LG002	94172	1/31/13	20.0000		QC21		
	Main Warehouse LG002	95876	1/31/13	24.0000		QC21		
D2974 Packer	Main Warehouse ST022	71997	9/25/12	33.0000		QC21		99465
D2975 Wearshoe	Main Warehouse ST500	86784	2/22/13	8.0000		QC21		
	Main Warehouse ST500	95513	2/22/13	12.0000		QC21		99466
			Total:	82.0000				
			Total:	33.0000				
			Total:	20.0000				

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	Bending			General							
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Crushed/Crimped.	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ripples in Bend	<input type="checkbox"/>	Offset	<input type="checkbox"/>	Other	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Torque Waves in Extrusion	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>		